

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Kotewicz *et al.*

Appl. No. 10/024,149

Filed: December 21, 2001

For: **Cloned Genes Encoding Reverse
Transcriptase Lacking RNase H
Activity**

Confirmation No. 4033

Art Unit: 1652

Examiner: *To Be Assigned*

Atty. Docket: 0942.049000A/RWE/MTT

Eighth Supplemental Information Disclosure Statement

Commissioner for Patents
Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering of documents in this Eighth Supplemental Information Disclosure Statement is a continuation of the numbering in Applicants' Seventh Supplemental Information Disclosure Statement filed herewith in connection with the above-captioned application.

The Examiner's attention is directed to the following co-pending U.S. Patent Applications, which are directed to related technical subject matter:

U.S. Patent Application No. 09/845,157, filed May 1, 2001, cited herein as Document **AS99**.

U.S. Patent Application No. 09/808,124, filed March 15, 2001, cited herein as Document **AT99**.

U.S. Patent Application No. 09/902,741, filed July 12, 2001, cited herein as Document **AR100**.

All documents were cited and submitted to the Office in Application No. 09/220,330, filed December 24, 1998.

The identification of these U.S. Patent Applications is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during examination.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith. It is further understood that the Examiner will consider information that had been

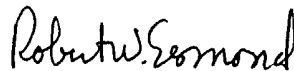
cited or submitted to the U.S. Patent and Trademark Office in a prior application relied on under 35 U.S.C. § 120. 1138 OG 37, 38 (May 19, 1992).

This Eighth Supplemental Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. Thus, no statement or fee is required.

Consideration of the cited documents and making the same of record in the prosecution of the above-identified application is respectfully requested. The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Robert W. Esmond
Attorney for Applicants
Registration No. 32,893

Date: Mardi 5, 2003

1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934
(202) 371-2600

FORM PTO-1449

EIGHTH SUPPLEMENTAL
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OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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| | AR | | |
| | AS | | |
| | AT | 69 | Allain, B. et al., "CIS Elements and Trans-acting Factors required for Minus Strand DNA Transfer during Reverse Transcription of the Genomic RNA of Murine Leukemia Virus," J. Mol. Biol. 277:225-235, Academic Press Limited (March 1998). |

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| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--------------------------------------------------------------|----|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | AR | <u>70</u> | Arendes, J. et al., "A Mutation in the <i>rnh</i> -locus of <i>Escherichia coli</i> Affects the Structural Gene for RNase H," <i>J. Biol. Chem.</i> 257:4719-4722, The American Society of Biological Chemists, Inc. (1982). |
| | AS | <u>70</u> | Arion, D. et al., "The K65R Mutation Confers Increased DNA Polymerase Processivity to HIV-1 Reverse Transcriptase," <i>J. Biol. Chem.</i> 271:19860-19864, The American Society for Biochemistry and Molecular Biology, Inc. (1996). |
| | AT | <u>70</u> | Arnold, E. et al., "Structure of HIV-1 reverse transcriptase/DNA complex at 7 Å resolution showing active site locations," <i>Nature</i> 357:85-89, Macmillan Publishers Ltd. (1992). |

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|--------------------------------------------------------------|----|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | AR | <u>71</u> | Bahar, I., "Collective Motions in HIV-1 Reverse Transcriptase: Examination of Flexibility and Enzyme Function," <i>J. Mol. Biol.</i> 285:1023-1037, Academic Press (January 1999). |
| | AS | <u>71</u> | Basu, S. et al., "Sulphydryl groups in the template-primer-binding domain of murine leukaemia virus reverse transcriptase," <i>Biochem. J.</i> 296:577-583, The Biochemical Society (1993). |
| | AT | <u>71</u> | Beard, W.A. et al., "Structure/Function Studies of Human Immunodeficiency Virus Type 1 Reverse Transcriptase," <i>J. Biol. Chem.</i> 269:28091-28097, American Society for Biochemistry and Molecular Biology (1994). |

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| | AR | <u>72</u> | Ben-Artzi, H. et al., "Characterization of the double stranded RNA dependent RNase activity associated with recombinant reverse transcriptases," <i>Nucl. Acids Res.</i> 20:5115-5118, Oxford University Press (1992). |
| | AS | <u>72</u> | Blain, S.W. and Goff, S.P., "Effects on DNA Synthesis and Translocation Caused by Mutations in the RNase H Domain of Moloney Murine Leukemia Virus Reverse Transcriptase," <i>J. Virol.</i> 69:4440-4452, American Society for Microbiology (1995). |
| | AT | <u>72</u> | Blain, S.W. and Goff, S.P., "Differential Effects of Moloney Murine Leukemia Virus Reverse Transcriptase Mutations on RNase H Activity in Mg ²⁺ and Mn ²⁺ ," <i>J. Biol. Chem.</i> 271:1448-1454, The American Society for Biochemistry and Molecular Biology, Inc. (1996). |

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| | AR | 73 | Caliendo, A.M. et al., "Effects of Zidovudine-Selected Human Immunodeficiency Virus Type 1 Reverse Transcriptase Amino Acid Substitutions on Processive DNA Synthesis and Viral Replication," <i>J. Virol.</i> 70:2146-2153, American Society for Microbiology (1996). |
| | AS | 73 | Carl, P.L. et al., "Isolation and Mapping of a Mutation in <i>Escherichia coli</i> with Altered Levels of Ribonuclease H," <i>J. Bacteriol.</i> 144:28-35, American Society for Microbiology (1980). |
| | AT | 73 | Carmichael, G.G. and McMaster, G.K., "The Analysis of Nucleic Acids in Gels Using Glyoxal and Acridine Orange," <i>Meth. Enzymol.</i> 65:380-391, Academic Press, Inc. (1980). |

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| | AR | <u>74</u> | Catucci, M. et al., "Development and Significance of the HIV-1 Reverse Transcriptase M184V Mutation During Combination Therapy With Lamivudine, Zidovudine, and Protease Inhibitors," <i>J. Acquir. Immune Defic. Syndr.</i> 21:203-208, Lippincott Williams & Wilkins, Inc. (July 1999). |
| | AS | <u>74</u> | Chen, Y. and Marion, P.L., "Amino Acids Essential for RNase H Activity of Hepadnaviruses Are Also Required for Efficient Elongation of Minus-Strand Viral DNA," <i>J. Virol.</i> 70:6151-6156, American Society for Microbiology (1996). |
| | AT | <u>74</u> | Chowdhury, K. et al., "Elucidation of the Role of Arg 110 of Murine Leukemia Virus Reverse Transcriptase in the Catalytic Mechanism: Biochemical Characterization of Its Mutant Enzymes," <i>Biochemistry</i> 35:16610-16620, American Chemical Society (1996). |

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| | AR | 75 | DeStefano, J.J. et al., "Requirements for Strand Transfer between Internal Regions of Heteropolymer Templates by Human Immunodeficiency Virus Reverse Transcriptase," <i>J. Virol.</i> 66:6370-6378, American Society for Microbiology (1992). |
| | AS | 75 | Diaz, L. and DeStefano, J.J., "Strand transfer is enhanced by mismatched nucleotides at the 3' primer terminus: a possible link between HIV reverse transcriptase fidelity and recombination," <i>Nucl. Acids Res.</i> 24:3086-3092, Oxford University Press (1996). |
| | AT | 75 | Ditta, G. et al., "Broad host range DNA cloning system for gram-negative bacteria: Construction of a gene bank of <i>Rhizobium meliloti</i> ," <i>Proc. Natl. Acad. Sci (USA)</i> 77:7347-7351, National Academy of Sciences (1980). |

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| | AR | 76 | Drosopoulos, W.C. and Prasad, V.R., "Increased Polymerase Fidelity of E89G, a Nucleoside Analog-Resistant Variant of Human Immunodeficiency Virus Type 1 Reverse Transcriptase," <i>J. Virol.</i> 70:4834-4838, American Society for Microbiology (1996). |
| | AS | 76 | Feng, J.Y. and Anderson, K.S., "Mechanistic Studies Examining the Efficiency and Fidelity of DNA Synthesis by the 3TC-Resistant Mutant (184V) of HIV-1 Reverse Transcriptase," <i>Biochemistry</i> 38:9440-9448, American Chemical Society (July 1999; published on the web 06/30/1999). |
| | AT | 76 | Fontaine, E. <i>et al.</i> , "Fast Genotypic Detection of Drug Resistance Mutations in the HIV-1 Reverse Transcriptase Gene of Treatment-Naive Patients," <i>J. Hum. Virol.</i> 1:451-456, Lippincott Williams & Wilkins (November-December 1998). |

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| | AR | <u>77</u> | Gao, G. et al., "Conferring RNA polymerase Activity to a DNA polymerase: A single residue in reverse transcriptase controls substrate selection," <i>Proc. Natl. Acad. Sci (USA)</i> 94:407-411, National Academy of Sciences (January 1997). |
| | AS | <u>77</u> | Gao, G. and Goff, S.P., "Replication Defect of Moloney Murine Leukemia Virus with a Mutant Reverse Transcriptase That Can Incorporate Ribonucleotides and Deoxyribonucleotides," <i>J. Virol.</i> 72:5905-5911, American Society for Microbiology (July 1998). |
| | AT | <u>77</u> | Gao, H.-Q. et al., "Similarities and Differences in the RNase H Activities of Human Immunodeficiency Virus Type 1 Reverse Transcriptase and Moloney Murine Leukemia Virus Reverse Transcriptase," <i>J. Mol. Biol.</i> 294:1097-1113 (December 1999). |

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| | AR | <u>78</u> | Georgiadis, M.M. et al., "Mechanistic implications from the structure of a catalytic fragment of Moloney murine leukemia virus reverse transcriptase," <i>Structure</i> 3:879-892, Current Biology Ltd. (1995). |
| | AS | <u>78</u> | Gerard, G.F., "Multiple RNase H Activities in Mammalian Type C Retrovirus Lysates," <i>J. Virol.</i> 26:16-28, American Society Microbiology (1978). |
| | AT | <u>78</u> | Gerard, G.F. and D'Alessio, J.M., "Reverse Transcriptase (EC 2.7.7.49): The Use of Cloned Moloney Murine Leukemia Virus Reverse Transcriptase to Synthesize DNA from RNA," in <i>Methods in Molecular Biology</i> , vol. 16: <i>Enzymes of Molecular Biology</i> , Burrell, M.M., ed., Humana Press Inc., Totowa, N.J., pp. 73-93 (1993). |

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| | APPLICANTS Kotewicz et al. | |
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| | AR | <u>79</u> | Goedken, E.R. and Marqusee, S., "Folding the Ribonuclease H Domain of Moloney Murine Leukemia Virus Reverse Transcriptase Requires Metal Binding or a Short N-Terminal Extension," <i>Proteins: Structure, Function, and Genetics</i> 33:135-143, Wiley-Liss, Inc. (October 1998). |
| | AS | <u>79</u> | Goff, S. et al., "Isolation and Properties of Moloney Murine Leukemia Virus Mutants: Use of a Rapid Assay for Release of Virion Reverse Transcriptase," <i>J. Virol.</i> 38:239-248, American Society for Microbiology (1981). |
| | AT | <u>79</u> | Goff, S.P., "Retroviral Reverse Transcriptase: Synthesis, Structure, and Function," <i>J. Acquired Immune Deficiency Syndromes</i> 3:817-831, Raven Press, Ltd. (1990). |

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| | AR | <u>80</u> | Goobar-Larsson, L. et al., "Disruption of a Salt Bridge between Asp 488 and Lys 465 in HIV-1 Reverse Transcriptase Alters Its Proteolytic Processing and Polymerase Activity," <i>Virology</i> 196:731-738, Academic Press, Inc. (1993). |
| | AS | <u>80</u> | Gopalakrishnan, V. et al., "Human immunodeficiency virus type 1 reverse transcriptase: Spatial and temporal relationship between the polymerase and RNase H activities," <i>Proc. Natl. Acad. Sci. (USA)</i> 89:10763-10767, National Academy of Sciences (1992). |
| | AT | <u>80</u> | Götte, M. et al., "The M184V Mutation in the Reverse Transcriptase of Human Immunodeficiency Virus Type 1 Impairs Rescue of Chain-Terminated DNA Synthesis," <i>J. Virol.</i> 74:3579-3585, American Society for Microbiology (April 2000). |

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| | AR | <u>81</u> | Gottesman, M.E. et al., "Transcription Antitermination by Bacteriophage Lambda N Gene Product," <i>J. Mol. Biol.</i> 140:57-75, Academic Press Inc. (1980). |
| | AS | <u>81</u> | Guo, J. et al., "Defects in Primer-Template Binding, Processive DNA Synthesis, and RNase H Activity Associated with Chimeric Reverse Transcriptases Having the Murine Leukemia Virus Polymerase Domain Joined to <i>Escherichia coli</i> RNase H," <i>Biochemistry</i> 34:5018-5029, American Chemical Society (1995). |
| | AT | <u>81</u> | Gutiérrez-Rivas, M. et al., "Mutational Analysis of Phe160 within the "Palm" Subdomain of Human Immunodeficiency Virus Type 1 Reverse Transcriptase," <i>J. Mol. Biol.</i> 290:615-625, Academic Press (July 1999). |

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| | AR | <u>82</u> | Hafkemeyer, P. et al., "HP 0.35, a cephalosporin degradation product is a specific inhibitor of lentiviral RNases H," <i>Nucl. Acids Res.</i> 19:4059-4065, Oxford University Press (1991). |
| | AS | <u>82</u> | Han, L.-Y. et al., "Ribonuclease H Renaturation Gel Assay Using a Fluorescent-Labeled Substrate," <i>BioTechniques</i> 23:920-926, Eaton Publishing Co. (November 1997). |
| | AT | <u>82</u> | Jacobo-Molina, A. et al., "Crystal structure of human immunodeficiency virus type 1 reverse transcriptase complexed with double-stranded DNA at 3.0 Å resolution shows bent DNA," <i>Proc. Natl. Acad. Sci. (USA)</i> 90:6320-6324, National Academy of Sciences (1993). |

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| AR | <u>83</u> | Jaeger, J. <i>et al.</i> , "The structure of HIV-1 reverse transcriptase complexed with an RNA pseudoknot inhibitor," <i>EMBO J.</i> 17:4535-4542, Oxford University Press (August 1998). |
| AS | <u>83</u> | Jin, J. <i>et al.</i> , "Analysis of the Role of Glutamine 190 in the Catalytic Mechanism of Murine Leukemia Virus Reverse Transcriptase," <i>J. Biol. Chem.</i> 274:20861-20868, The American Society for Biochemistry and Molecular Biology, Inc. (July 1999). |
| AT | <u>83</u> | Kanaya, S. and Crouch, R.J., "DNA Sequence of the Gene Coding for <i>Escherichia coli</i> Ribonuclease H," <i>J. Biol. Chem.</i> 258:1276-1281, The American Society of Biological Chemists, Inc. (1983). |

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| | AR | <u>84</u> | Kanaya, S. and Crouch, R.J., "Low Levels of RNase H Activity in <i>Escherichia coli</i> FB2 <i>rnh</i> Result from a Single-Base Change in the Structural Gene of RNase H," <i>J. Bacteriol.</i> 154:1021-1026, American Society for Microbiology (1983). |
| | AS | <u>84</u> | Kanaya, S. and Crouch, R.J., "The <i>rnh</i> gene is essential for growth of <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. (USA)</i> 81:3447-3451, National Academy of Sciences (1984). |
| | AT | <u>84</u> | Kaushik, N. et al., "Tyrosine 222, a Member of the YXDD Motif of MuLV RT, Is Catalytically Essential and Is a Major Component of the Fidelity Center," <i>Biochemistry</i> 38:2617-2627, American Chemical Society (March 1999; published on the web 02/10/1999). |

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| | AR | <u>85</u> | Kaushik, N. et al., "Role of Glutamine 151 of Human Immunodeficiency Virus Type-1 Reverse Transcriptase in Substrate Selection As Assessed by Site-Directed Mutagenesis," <i>Biochemistry</i> 39:2912-2920, American Chemical Society (March 2000; published on the web 02/22/2000). |
| | AS | <u>85</u> | Keck, J.L., et al., "Activation/Attenuation Model for RNase H. A One-Metal Mechanism with Second-Metal Inhibition," <i>J. Biol. Chem.</i> 273:34128-34133, The American Society for Biochemistry and Molecular Biology, Inc. (December 1998). |
| | AT | <u>85</u> | Kelleher, C.D. and Champoux, J.J., "Characterization of RNA Strand Displacement Synthesis by Moloney Murine Leukemia Virus Reverse Transcriptase," <i>J. Biol. Chem.</i> 273:9976-9986, The American Society for Biochemistry and Molecular Biology, Inc. (April 1998). |

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| | AR | 86 | Kern, G. et al., "Characterization of a folding intermediate from HIV-1 ribonuclease H," <i>Protein Sci.</i> 7:2164-2174, Cambridge University Press (October 1998). |
| | AS | 86 | Kohlstaedt, L.A. et al., "Crystal Structure at 3.5 Å Resolution of HIV-1 Reverse Transcriptase Complexed with an Inhibitor," <i>Science</i> 256:1783-1790, American Association for the Advancement of Science (1992). |
| | AT | 86 | Laemmli, U.K., "Cleavage of Structural Proteins during the Assembly of the Head of Bacteriophage T4," <i>Nature</i> 227:680-685, Macmillan (Journals) Limited (1970). |

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| | AR | 87 | Larder, B.A. <i>et al.</i> , "A Family of Insertion Mutations between Codons 67 and 70 of Human Immunodeficiency Virus Type 1 Reverse Transcriptase Confer Multinucleoside Analog Resistance," <i>Antimicrob. Agents Chemother.</i> 43:1961-1967, American Society for Microbiology (August 1999). |
| | AS | 87 | Lavignon, M. <i>et al.</i> , "Inhibition of Moloney Murine Leukemia Virus Reverse Transcriptase by α -Anomeric Oligonucleotides," <i>Biochem. Biophys. Res. Commun.</i> 161:1184-1190, Academic Press, Inc. (1989). |
| | AT | 87 | Levin, H.L., "An Unusual Mechanism of Self-Primed Reverse Transcription Requires the RNase H Domain of Reverse Transcriptase To Cleave an RNA Duplex," <i>Mol. Cell. Biol.</i> 16:5645-5654, American Society for Microbiology (1996). |

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| | AR | <u>88</u> | Levin, H.L., "It's Prime Time for Reverse Transcriptase," Cell 88:5-8, Cell Press (January 1997). |
| | AS | <u>88</u> | Loya, S. and Hizi, A., "The Interaction of Illimaquinone, a Selective Inhibitor of the RNase H Activity, with the Reverse Transcriptases of Human Immunodeficiency and Murine Leukemia Retroviruses," J. Biol. Chem. 268:9323-9328, The American Society for Biochemistry and Molecular Biology, Inc. (1993). |
| | AT | <u>88</u> | Madrid, M. et al., "Major Subdomain Rearrangement in HIV-1 Reverse Transcriptase Simulated by Molecular Dynamics," Proteins: Structure, Function, and Genetics 35:332-337, Wiley-Liss, Inc. (May 1999). |

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FORM PTO-1449

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0942.049000A/RWE/MTT

APPLICATION NO.
10/024,149

APPLICANTS
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U.S. PATENT DOCUMENTS

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| | AR | <u>89</u> | Maxam, A.M. and Gilbert, W., "Sequencing End-Labeled DNA with Base-Specific Chemical Cleavages," <i>Meth. Enzymol.</i> 65:499-560, Academic Press, Inc. (1980). |
| | AS | <u>89</u> | McDonell, M.W. et al., "Analysis of Restriction Fragments of T7 DNA and Determination of Molecular Weights by Electrophoresis in Neutral and Alkaline Gels," <i>J. Mol. Biol.</i> 110:119-146, Academic Press, Inc. (1977) |
| | AT | <u>89</u> | Medrano, L. et al., "Sequence Analysis of the Polymerase Domain of HIV-1 Reverse Transcriptase in Naive and Zidovudine-Treated Individuals Reveals a Higher Polymorphism in α -Helices as Compared with β -strands," <i>Virus Genes</i> 18:203-210, Kluwer Academic Publishers (June 1999). |

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| | AR | <u>90</u> | Messing, J., "New M13 Vectors for Cloning," <i>Meth. Enzymol.</i> 101:20-78, Academic Press, Inc. (1983). |
| | AS | <u>90</u> | Misra, H.S. et al., "An Enzymatically Active Chimeric HIV-1 Reverse Transcriptase (RT) with the RNase-H Domain of Murine Leukemia Virus RT Exists as a Monomer," <i>J. Biol. Chem.</i> 273:9785-9789, The American Society for Biochemistry and Molecular Biology, Inc. (April 1998). |
| | AT | <u>90</u> | Murante, R.S. et al., "Junction ribonuclease: An activity in Okazaki fragment processing," <i>Proc. Natl. Acad. Sci. (USA)</i> 95:2244-2249, The National Academy of Sciences (March 1998). |

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| | AR | <u>91</u> | Nakamura, H. <i>et al.</i> , "How does RNase H recognize a DNA-RNA hybrid?" <i>Proc. Natl. Acad. Sci. (USA)</i> 88:11535-11539, The National Academy of Sciences (1991). |
| | AS | <u>91</u> | Nishitani, H. <i>et al.</i> , "Specific chromosomal sites enhancing homologous recombination in <i>Escherichia coli</i> mutants defective in RNase H," <i>Mol. Gen. Genet.</i> 240:307-314, Springer-Verlag (1993). |
| | AT | <u>91</u> | Olivares, I. <i>et al.</i> , "Second-Site Reversion of a Human Immunodeficiency Virus Type 1 Reverse Transcriptase Mutant That Restores Enzyme Function and Replication Capacity," <i>J. Virol.</i> 73:6293-6298, American Society for Microbiology (August 1999). |

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| | AR | <u>92</u> | Patel, P.H. et al., "Insights into DNA Polymerization Mechanisms from Structure and Function Analysis of HIV-1 Reverse Transcriptase," <i>Biochemistry</i> 34:5351-5363, American Chemical Society (1995). |
| | AS | <u>92</u> | Peliska, J.A. and Benkovic, S.J., "Mechanism of DNA Strand Transfer Reactions Catalyzed by HIV-1 Reverse Transcriptase," <i>Science</i> 258:1112-1118, American Association for the Advancement of Science (1992). |
| | AT | <u>92</u> | Post, K. et al., "A Large Deletion in the Connection Subdomain of Murine Leukemia Virus Reverse Transcriptase or Replacement of the RNase H Domain with <i>Escherichia coli</i> RNase H Results in Altered Polymerase and RNase H Activities," <i>Biochemistry</i> 32:5508-5517, American Chemical Society (1993). |

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| | AR | <u>93</u> | Precious, H.M. et al., "Multiple sites in HIV-1 reverse transcriptase associated with virological response to combination therapy," <i>AIDS</i> 14:31-36, Lippincott Williams & Wilkins (January 2000). |
| | AS | <u>93</u> | Richardson, C.C. et al., "Enzymatic Synthesis of Deoxyribonucleic Acid," <i>J. Biol. Chem.</i> 239:222-231, The American Society of Biological Chemists, Inc. (1964). |
| | AT | <u>93</u> | Rodgers, D.W. et al., "The structure of unliganded reverse transcriptase from the human immunodeficiency virus type 1," <i>Proc. Natl. Acad. Sci. (USA)</i> 92:1222-1226, The National Academy of Sciences (1995). |

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| | AR | <u>94</u> | Sarafianos, S.G. et al., "Crystal structure of HIV-1 reverse transcriptase in complex with a polypurine tract RNA:DNA," <i>EMBO J.</i> 20:1449-1461, European Molecular Biology Organization (March 2001). |
| | AS | <u>94</u> | Schultz, S.J. et al., "Polypurine Tract Primer Generation and Utilization by Moloney Murine Leukemia Virus Reverse Transcriptase," <i>J. Biol. Chem.</i> 274:34547-34555, The American Society for Biochemistry and Molecular Biology, Inc. (December 1999). |
| | AT | <u>94</u> | Shirasawa, Y. et al., "Transdominant Inhibition of Moloney Murine Leukemia Virus Proliferation by Defective Mutants of Reverse Transcriptase," <i>J. Biochem.</i> 119:1070-1075, The Japanese Biochemical Society (1996). |

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| | AR | <u>95</u> | Smith, C.M. et al, "Sequence Requirements for Removal of tRNA by an Isolated Human Immunodeficiency Virus Type 1 RNase H Domain," <i>J. Virol.</i> 72:6805-6812, American Society for Microbiology (August 1998). |
| | AS | <u>95</u> | Smith, R.A. et al., "A New Point Mutation (P157S) in the Reverse Transcriptase of Human Immunodeficiency Virus Type 1 Confers Low-Level Resistance to (-)-β-2',3'-Dideoxy-3'-Thiacytidine," <i>Antimicrob. Agents Chemotherapy</i> 43:2077-2080, American Society for Microbiology (August 1999). |
| | AT | <u>95</u> | Southern, E.M., "Detection of Specific Sequences Among DNA Fragments Separated by Gel Electrophoresis," <i>J. Mol. Biol.</i> 98:503-517, Academic Press (1975). |

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| | AR | <u>96</u> | Spedding, G. <i>et al.</i> , "Inhibition of reverse transcriptases by flavonoids," <i>Antiviral Res.</i> 12:99-110, Elsevier Science Publishers B.V. (Biomedical Division) (1989). |
| | AS | <u>96</u> | Sugiura, W. <i>et al.</i> , "Identification of Insertion Mutations in HIV-1 Reverse Transcriptase Causing Multiple Drug Resistance to Nucleoside Analogue Reverse Transcriptase Inhibitors," <i>J. Hum. Virol.</i> 2:146-153, Lippincott Williams & Wilkins, Inc. (May-June 1999). |
| | AT | <u>96</u> | Sun, D. <i>et al.</i> , "Cloning, expression, and purification of a catalytic fragment of Moloney murine leukemia virus reverse transcriptase: Crystallization of nucleic acid complexes," <i>Protein Sci.</i> 7:1575-1582, Cambridge University Press (July 1998). |

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| | AR | 97 | Tanese, N. et al., "Abortive Reverse Transcription by Mutants of Moloney Murine Leukemia Virus Deficient in the Reverse Transcriptase-Associated RNase H Function," <i>J. Virol.</i> 65:4387-4397, American Society for Microbiology (1991). |
| | AS | 97 | Trentin, B. et al., "Human T-cell Leukemia Virus Type 1 Reverse Transcriptase (RT) Originates from the pro and pol Open Reading Frames and Requires the Presence of RT-RNase H (RH) and RT-RH-Integrase Proteins for its Activity," <i>J. Virol.</i> 72:6504-6510, American Society for Microbiology (August 1998). |
| | AT | 97 | Veal, G.J. et al., "Sequence-specific RNase H cleavage of gag mRNA from HIV-1 infected cells by an antisense oligonucleotide in vitro," <i>Nucl. Acids Res.</i> 26:5670-5675, Oxford University Press (December 1998). |

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|--|----|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | AR | <u>98</u> | Yadav, P.N.S. <i>et al.</i> , "A Computer-assisted Analysis of Conserved Residues in the Three-dimensional Structures of the Polymerase Domains of <i>Escherichia coli</i> DNA Polymerase I and HIV-1 Reverse Transcriptase," <i>J. Biol. Chem.</i> 269:716-720, The American Society for Biochemistry and Molecular Biology, Inc. (1994). |
| | AS | <u>98</u> | Whiting, S.H. and Champoux, J.J., "Properties of Strand Displacement Synthesis by Moloney Murine Leukemia Virus Reverse Transcriptase: Mechanistic Implications," <i>J. Mol. Biol.</i> 278:559-577, Academic Press Limited (May 1998). |
| | AT | <u>98</u> | Wilson, J.E. <i>et al.</i> , "Human Immunodeficiency Virus Type-1 Reverse Transcriptase. Contribution of Met-184 to Binding of Nucleoside 5'-Triphosphate," <i>J. Biol. Chem.</i> 271:13656-13662, The American Society for Biochemistry and Molecular Biology, Inc. (1996). |

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| EXAMINER | DATE CONSIDERED |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 EIGHTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 0942.049000A/RWE/MTT | APPLICATION NO. 10/024,149 |
| | APPLICANTS Kotewicz et al. | |
| | FILING DATE December 21, 2001 | GROUP 1652 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|----|--------------------|------|------|-------|---------------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
| | AA | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
| | AL | | | | | | Yes No |
| | AM | | | | | | Yes No |
| | AN | | | | | | Yes No |
| | AO | | | | | | Yes No |
| | AP | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|--|----|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | AR | <u>99</u> | Wöhrl, B.M. et al., "Footprint Analysis of Replicating Murine Leukemia Virus Reverse Transcriptase," <i>Science</i> 267:96-99, The American Association for the Advancement of Science (1995). |
| | AS | <u>99</u> | Co-Pending U.S. Patent Application No. 09/845,157, Smith et al., filed May 1, 2001. |
| | AT | <u>99</u> | Co-Pending U.S. Patent Application No. 09/808,124, Potter et al., filed March 15, 2001. |

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|-----------------------|----|-----------------|------|------|-------|-----------|-------------|
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| | AA | | | | | | |
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| | AN | | | | | | Yes No |
| | AO | | | | | | Yes No |
| | AP | | | | | | Yes No |

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| | AR | <u>100</u> | Co-Pending U.S. Patent Application No. 09/902,741, Chatterjee, D.K., filed July 12, 2001. |
| | AS | | |
| | AT | | |

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